

A new species of *Isopogon* (Proteaceae) from southwest Western Australia

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Abstract

Isopogon robustus Foreman ex N.Gibson *sp. nov.* is described, with notes on its affinities, distribution and conservation status.

Introduction

During botanical surveys of the Parker Range in southwest Western Australia in October 1994 a specimen of *Isopogon* was collected (Fig. 1) that did not fit circumscriptions of taxa listed in the recent revision of the genus (Foreman 1995). The collection was forwarded to Don Foreman who confirmed its status as a new taxon and suggested the epithet. Don's untimely death intervened before he was able to publish this new species.

Taxonomy

Isopogon robustus Foreman ex N.Gibson, *sp. nov.*

Isopogoni scabrinsculo subsp. *pubflori* Foreman affinis sed floribus longioribus (ad 25 mm longis), foliis crassioribus (ad 3.3 mm dia.); ad aliis subspeciebus *Isopogonis scabrinscula* Meisn. tubo perianthii pubescenti differt.

Type: Parker Range, Western Australia [precise locality withheld], 10 x 1996, N. Gibson 2513 (holotype PERTH 04701917, isotypes CANB, MEL).

Shrub to 1.5 m high and to 2 m diameter. *Branchlets* red-brown to grey-brown, minutely pubescent. *Leaves* simple; petiole not distinct; lamina terete, to 15 cm long and 2.5 to 3.3 mm diameter, pungent, minutely scabrous, minutely sericeous, becoming glabrescent. *Inflorescence* terminal, sessile, solitary, obovoid to 38 mm diameter, surrounded by leaves; involucre bracts broad, ovate, imbricate, tomentose outside, persistent, becoming hard after flowering; cone scales narrower, densely tomentose outside with orange hairs, usually glabrous toward apex. *Flowers* 19–25 mm long, pink; perianth tube pubescent, with a tuft of hairs on apex of each tepal. Pollen presenter 2.6–4.5 mm long; basal part papillose, 4-angled, swollen at base, constricted near mid-point then dilated and globose; apical part glabrous, swollen near its base then tapering slightly to stigmatic cup. *Cones* globose, 19–24 mm diameter. *Nuts* ovoid, beaked, 2.8–3.7 mm long, villous, hairs yellow.

Additional specimens examined: WESTERN AUSTRALIA: Parker Range, [precise locality withheld], 16th October 1994, N. Gibson & M. Lyons 2077 (PERTH); Parker Range, [precise locality withheld], 14th December 2001, K. Bettink 35 (PERTH).

Distribution: Known from a single population of c. 120 plants at the type location in the Parker Range, c. 50 km SE of Southern Cross.

Habitat: Occurs on an eroding laterite shelf, with a skeletal grey sandy-loam soil.

Flowering period: October.

Conservation status: Listed as Declared Rare Flora under Western Australian



Figure 1. The type of *Isopogon robustus* showing terminal inflorescences on annual branches. Scale bar 10 cm.

Table 1. Characters distinguishing *Isopogon robustus* from the subspecies of *Isopogon scabriusculus*. Leaf width measured half way between base and tip.

	<i>Isopogon scabriusculus</i> subsp. <i>scabriusculus</i>	<i>Isopogon scabriusculus</i> subsp. <i>stenophyllus</i>	<i>Isopogon scabriusculus</i> subsp. <i>pubifloris</i>	<i>Isopogon robustus</i>
Leaf type	simple or lobed	simple	simple	simple
Leaf cross-section	flat	terete	terete	terete
Leaf width	2.1-3.8 mm	1.2-2.5 mm	1.2-2.5 mm	2.5-3.3 mm
Flower length	12-15 mm	9-15 mm	11-16 mm	19-25 mm
Perianth tube pubescent	no	no	yes	yes

legislation. Meets criteria for listing as Critically Endangered under IUCN guidelines (IUCN 2001). Precise location details withheld for conservation reasons. The population occurs in an area under threat from exploration and mining activity (Gibson & Lyons 1998).

Etymology: The specific epithet is from the Latin word *robustus* (robust), referring to the thick leaves and large flowers of this species.

Notes: The new species is most closely related to *Isopogon scabriusculus* Meisn. but differs in having longer flowers and thicker terete leaves (Table 1). Of the three subspecies of *I. scabriusculus* the new taxon is most similar to *I. scabriusculus* subsp. *pubifloris* Foreman that also has a pubescent perianth tube.

Acknowledgements

Paul Wilson kindly provided encouragement and the latin diagnosis.

Reference

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